CLAIMS

1. An isolated nucleic acid which encodes a polypeptide which comprises an amino acid sequence having at least 87% sequence similarity to the amino acid sequence of figure 1 or figure 2.

2. An isolated nucleic acid according to claim 1, wherein the polypeptide comprises the amino acid sequence of figure 1.

3. An isolated nucleic acid according to claim 1 wherein the polypeptide comprises the amino acid sequence of figure 2.

4. An isolated nucleic acid according to any one of claims 1 to 3 wherein the polypeptide binds to a UL16 and/or a NKG2D receptor.

5. An isolated nucleic acid according to any of one of claims 1 to 4 having a nucleotide sequence which has least 85% sequence identity with the nucleotide sequence of figure 3 or figure 4.

6. An isolated nucleic acid according to any of claims 1 to 5 wherein the isolated nucleic acid hybridises with the nucleic acid sequence shown in figure 3 or figure 4 or the complement thereof under stringent conditions.

7. An isolated polypeptide encoded by the nucleic acid according to any one of the preceding claims.

8. An isolated polypeptide which is a fragment of the isolated polypeptide of claim 7 consisting of at least 110 amino acids and being able to bind to a UL16 and/or a NKG2D receptor.

9. An isolated polypeptide according to claim 7 or claim 8 conjugated to a functional moiety, wherein the functional moiety is a polypeptide, a non-peptidyl chemical compound, a cell or a virus particle.

10. An isolated polypeptide according to claim 9 wherein the functional moiety has cytotoxic activity or binding activity.

11. A recombinant vector comprising a nucleic acid according to any one of claims 1 to 6.

12. A host cell comprising a heterologous nucleic acid according to any one of claims 1 to 6 or a vector according to claim 11.

13. A host cell according to claim 12 wherein the host cell is a bacterial cell or a eukaryotic cell.

14. A method of producing a RAET1G polypeptide comprising:
(a) causing expression from nucleic acid which encodes a RAET1G polypeptide according to any one of claims 1 to 6 in a suitable expression system to produce the RAET1G polypeptide recombinantly; and,
(b) testing the recombinantly produced polypeptide for RAET1G activity.

15. An isolated antibody that binds specifically to a RAET1G polypeptide according to any one of claims 7 to 10.

16. A method of identifying a disease condition in an individual, comprising:
determining the presence or amount of RAET1G polypeptide in a sample obtained from the individual;

17. A method according to claim 16 wherein the condition is a cancer condition.

18. A method according to claim 16 wherein the condition is an inflammatory disease.

19. A method according to claim 18 wherein the inflammatory disease is coeliac disease.

20. A method according to anyone of claims 16 to 19 wherein the RAET1G polypeptide is soluble.

21. A method according to claim 20 wherein the soluble RAET1G polypeptide consists of amino acid sequence of Figure 1.

22. A method according to anyone of claims 16 to 19 wherein the RAET1G polypeptide consists of the amino acid sequence of Figure 2.

23. A method according to anyone of claims 16 to 22 wherein the presence or amount of the polypeptide is determined by contacting the sample with an antibody according to claim 15.

24. A method of identifying a disease condition in an individual, comprising:
determining the presence or amount of a nucleic acid encoding a RAET1G polypeptide in a sample obtained from the individual.

25. A method according to claim 24 wherein the condition is a cancer condition.

26. A method according to claim 24 wherein the condition is an inflammatory disease.

27. A method according to claim 26 wherein the inflammatory disease is coeliac disease.

28. A method according to any one of claims 24 to 27 wherein the nucleic acid encodes a soluble RAET1G polypeptide.

29. A method according to claim 28 wherein the nucleic acid comprises the nucleotide sequence of figure 4.

30. A method according to any one of claims 24 to 27 wherein the nucleic acid comprises the nucleotide sequence of figure 3.

31. A method according to claim 17 or 25 wherein the sample comprises epithelial and/or epithelially derived cells.

32. A method according to claim 31 wherein the epithelial or epithelially derived cells are from the kidney, liver, lung, oesophagous, ovary, skin and/or uterus.

33. A method for obtaining and/or identifying a modulator of a RAET1G polypeptide, which method comprises:
(a) bringing into contact a RAET1G polypeptide and a test compound; and
(b) determining the interaction of the RAET1G polypeptide with the test compound;

34. A method for obtaining and/or identifying a compound which modulates the interaction of RAET1G with UL16 and/or NKG2D, which method comprises:
(a) bringing into contact a RAET1G polypeptide and a UL16 or NKG2D polypeptide in the presence of a test compound; and
(b) determining the interaction between the UL16 or NKG2D polypeptide and the RAET1G polypeptide before and after addition of the test compound.

35. A method according to claim 33 or claim 34 comprising identifying the test compound as a modulator of RAET1G activity.

36. A method according to any one of claims 33 to 35 comprising isolating and/or purifying a test compound.

37. A method according to any one of claims 33 to 36 comprising synthesising and/or manufacturing said test compound.

38. A method according to claims 33 to 35 comprising modifying the test compound to optimise the pharmaceutical properties thereof.

39. A method according to claims 33 to 38 comprising formulating the test compound in a pharmaceutical composition with a pharmaceutically acceptable excipient, vehicle or carrier.

40. A method of producing a pharmaceutical composition comprising formulating an RAET1G polypeptide according to any one of claims 7 to 10 or fragment thereof, or nucleic acid according to any one of claims 1 to 6 or a fragment thereof, or an antibody according to claim 15 in a pharmaceutical composition with a pharmaceutically acceptable excipient, vehicle or carrier.

41. A modulator of RAET1G activity obtained by one of said methods according to any one of claims 33 to 38.

42. A modulator of RAET1G activity according to claim 41 comprising a peptide fragment of a RAET1G polypeptide.

43. A RAET1G polypeptide according to any one of claims 7 to 10 or fragment thereof, or nucleic acid according to any one of claims 1 to 6 or a fragment thereof, an antibody according to claim 15 or a modulator according to any one of claim 26 or claim 42 for use in the treatment of a human or animal body.

44. Use of a RAET1G polypeptide according to any one of claims 7 to 10 or fragment thereof, or nucleic acid according to any one of claims 1 to 6 or a fragment thereof, an antibody according to claim 15 or a modulator according to any one of claim 41 or claim 42 in the manufacture of a medicament for the treatment of an individual with a RAET1G mediated condition.

45. Use according to claim 44 wherein the condition is selected from the group consisting of a pathogenic infection, a cancer condition and an immune disorder.

46. A method of treating an individual having a condition mediated by RAET1G, said method comprising administering a RAET1G polypeptide according to any one of claims 7 to 10 or fragment thereof, or nucleic acid according to any one of claims 1 to 6 or a fragment thereof, an antibody according to claim 15 or a modulator according to any one of claim 41 or claim 42, to the individual.

47. A method according to claim 46 wherein the condition is selected from the group consisting of a pathogenic infection, a cancer condition, an immune disorder.